

Work Order ID 115663

D 3 5 5 2 - 7

April-04-14 10:16:03 AM

B 1 1 5 6 6 3

115663

Page 1

Item ID: D3552-7

Revision ID:

Item Name: Door Prop

Start Date: 4/04/14 Start Qty: 6.00

6

Required Date: 4/04/14 Req'd Qty: 6.00

6

Reference:

Approvals: Process Plan:

P Date: 14-04-17

Tooling:

Date:

Run Start

NR1

QC:

Date: _____

SPC (Y/N):

Date: _____

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr	Revision Nbr
D3552	K

100

100

Purchasing

PURCHASING

Memo

Issue P/O: *23481*
Purchase Part Number: B8-220-530-070N
Supplier: LS Technologies
Certificate of conformity is required

0.00

P 14-04-17

110

110

Packaging

Receive & Inspect for Damage & Mat'l Certs

Memo

Ensure certificate of conformity is attached

0.00

P 14-04-10 (6)

120

120

QC

Quality Control

QC6- Inspect dimensions to drawing

Memo

Test for correct pressure

DAS
27
9-69
14/4/10

6

DQA:

Date:



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed:

Date:

Work Order update only

Work Order: _____		DISPOSITION		AGAINST DEPARTMENT/PROCESS					
Part No. _____		Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>			
NCR No. _____		Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>			
		Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>			
		Suspected Unapproved <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>				
Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									
FAULT CATEGORY									
Landing Gear				General					
				Bending <input type="checkbox"/>	Bend <input type="checkbox"/>	Folio/Program <input type="checkbox"/>	Outside Dimensions <input type="checkbox"/>	Pressure/Forced <input type="checkbox"/>	
Centre Not Concentric <input type="checkbox"/>	BOM/Route <input type="checkbox"/>	Grain <input type="checkbox"/>	Over/Under tolerance <input type="checkbox"/>	Set-up <input type="checkbox"/>					
Cracks <input type="checkbox"/>	Broken/Damage/Defect <input type="checkbox"/>	Hardware <input type="checkbox"/>	Part Incorrect <input type="checkbox"/>	Temperature/Cure <input type="checkbox"/>					
Crimp/Kink/Ripple/Wave <input type="checkbox"/>	Burrs <input type="checkbox"/>	Inspection Incomplete/Unqualified <input type="checkbox"/>	Part Lost/Missing <input type="checkbox"/>	Weld <input type="checkbox"/>					
Cuffs <input type="checkbox"/>	Contamination <input type="checkbox"/>	Instructions Incomplete/Unclear <input type="checkbox"/>	Part Moved <input type="checkbox"/>	Wrong Stock Pulled <input type="checkbox"/>					
Crushing <input type="checkbox"/>	Countersink <input type="checkbox"/>	Misaligned/off center <input type="checkbox"/>	Positioned Wrong <input type="checkbox"/>						
Heat Treat <input type="checkbox"/>	Cut Too Short <input type="checkbox"/>	Mislabeled <input type="checkbox"/>	Power Loss/Surge <input type="checkbox"/>	Other <input type="checkbox"/>					
Inspection Strip in Tube <input type="checkbox"/>	Drawing <input type="checkbox"/>	Misread <input type="checkbox"/>							
Marks/Chatter <input type="checkbox"/>	Drill Holes <input type="checkbox"/>	Off-set <input type="checkbox"/>							
Turning Sequence <input type="checkbox"/>	Finish <input type="checkbox"/>	Out of Calibration <input type="checkbox"/>							
Wave/Twist in Tube <input type="checkbox"/>	Fit/Function <input type="checkbox"/>	Out of Sequence <input type="checkbox"/>							

Work Order ID 115663

April-04-14 10:16:03 AM

115663

Page 2

Item ID: D3552-7

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Item Name: Door Prop

Start Date: 4/04/14 Start Qty: 6.00

6

Required Date: 4/04/14 Req'd Qty: 6.00

6

Reference:

Approvals:

Process Plan: _____ Date: _____

Tooling: _____ Date: _____

Run Start *NR1*

QC: _____ Date: _____

SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/
Work Center ID

Operation
Description

130

Identify as per dwg & Stock Location: ST260

130

Packaging

Packaging

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

0.00

DAS
28
9-69

APR 10 2014

0.00

140

QC21- Final Inspection - Work Order Release

140

QC

Quality Control

Memo

Memo

0.00

0.00

PL 14-04-14

D 14-04-11

DQA:

Date:



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed:

Date:

Work Order update only

Picklist Print

Page 1

April-04-14 10:16:03 AM

Work Order ID: 115663

115663

Parent Item: D3552-7

D3552-7

Parent Item Name: Door Prop

Start Date: 4/04/14

Required Date: 4/04/14

Start Qty: 6.00

Required Qty: 6.00

Comments: IPP Rev:A New Issue 06-11-13 EC
04-20 rev.d as per dwg DD verified by:EC IPP Rev:B 09-
DD 10.02.17 verified by:EC IPP Rev:C as per dwg RevE
DD verf:EC IPP Rev:D 10.12.03 as per dwg rev.G

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
B8-220-530-070N		Purchased		No		110	Each	0.0000	1	6		4/4/10	(6)

B8-220-530-070N

CARBON STEEL GAS SPRING

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only 

Work Order: _____	DISPOSITION		AGAINST DEPARTMENT/PROCESS					
Part No. _____	Rework <input type="checkbox"/>	Scrap <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>		
NCR No. _____	Use-as-is <input type="checkbox"/>	Suspected Unapproved <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>		
			Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>		
			Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>			

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

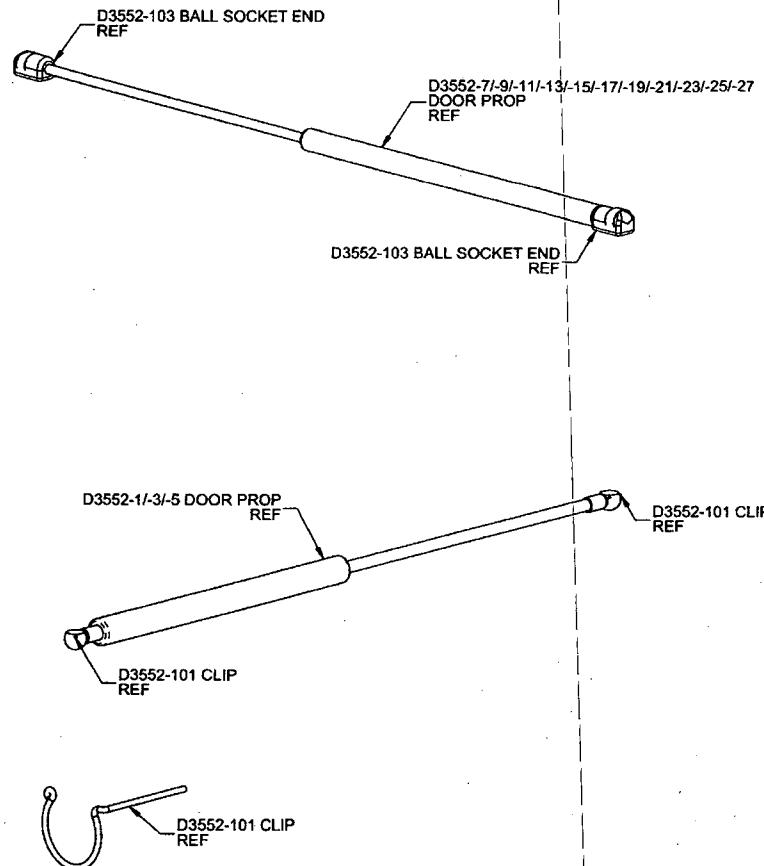
FAULT CATEGORY

Landing Gear		General									
		<input type="checkbox"/> Bending	<input type="checkbox"/> Bend	<input type="checkbox"/> Folio/Program	<input type="checkbox"/> Outside Dimensions	<input type="checkbox"/> Pressure/Forced					
		<input type="checkbox"/> Centre Not Concentric	<input type="checkbox"/> BOM/Route	<input type="checkbox"/> Grain	<input type="checkbox"/> Over/Under tolerance	<input type="checkbox"/> Set-up					
		<input type="checkbox"/> Cracks	<input type="checkbox"/> Broken/Damage/Defect	<input type="checkbox"/> Hardware	<input type="checkbox"/> Part Incorrect	<input type="checkbox"/> Temperature/Cure					
		<input type="checkbox"/> Crimp/Kink/Ripple/Wave	<input type="checkbox"/> Burrs	<input type="checkbox"/> Inspection Incomplete/Unqualified	<input type="checkbox"/> Part Lost/Missing	<input type="checkbox"/> Weld					
		<input type="checkbox"/> Cuffs	<input type="checkbox"/> Contamination	<input type="checkbox"/> Instructions Incomplete/Unclear	<input type="checkbox"/> Part Moved	<input type="checkbox"/> Wrong Stock Pulled					
		<input type="checkbox"/> Crushing	<input type="checkbox"/> Countersink	<input type="checkbox"/> Misaligned/off center	<input type="checkbox"/> Positioned Wrong						
		<input type="checkbox"/> Heat Treat	<input type="checkbox"/> Cut Too Short	<input type="checkbox"/> Mislabeled	<input type="checkbox"/> Power Loss/Surge	<input type="checkbox"/> Other					
		<input type="checkbox"/> Inspection Strip in Tube	<input type="checkbox"/> Drawing	<input type="checkbox"/> Misread							
		<input type="checkbox"/> Marks/Chatter	<input type="checkbox"/> Drill Holes	<input type="checkbox"/> Off-set							
		<input type="checkbox"/> Turning Sequence	<input type="checkbox"/> Finish	<input type="checkbox"/> Out of Calibration							
		<input type="checkbox"/> Wave/Twist in Tube	<input type="checkbox"/> Fit/Function	<input type="checkbox"/> Out of Sequence							

SPECIFICATION CONTROL DRAWING

11 side 3
PL 14047

RELEASED
2012-07-24



K	ADD "X" TO LS TECHNOLOGIES P/N'S TO DESIGNATE "EXTRA DAMPING" FOR D3552-15/-17/-19/-25/-27. REASON: PART 2-209.	MB	12.07.16
J	ADD PIN D3552-25/-27. REMOVE ALTERNATE PART NUMBER FOR -15, -17 AND -19. STROKE FOR -15, -17 AND -19 WAS 1386.06 NOW 1546.06. EXTENDED LENGTH FOR -15, -17 AND -19 WAS 38615.2 NOW 38715.2.	AP	11.12.07
I	ADD PIN D3552-23	RF	11.10.11
H	ADD PIN D3552-21	DC	11.03.10
G	FOR -15, FORCE:300/67.4 WAS 400/89.9, SUPPLIER P/N B8-154-387-300N WAS B8-154-387-400N; FOR -17, STROKE: 1395.47 WAS 1606.30, EXT LG: 38615.2 WAS 40716.0, SUPPLIER P/N B8-154-387-156N WAS B8-167-408-156N.	JPH	10.11.01
F	ADD PIN D3552-15/-17/-19 AND ALTERNATE SUPPLIER	JPH	10.07.27
E	ADD PIN D3552-13 ZN B8-1, A8-1, D6-1, CHANGE NAME FROM "GAS SPRING" TO "DOOR PROP" THROUGH OUT DWG	HS	10.02.03
D	ADD P/N D3552-101 ZN D6-1, C7-1, C1-1 AND D3552-103 ZN D1-1 AND C2-1 AND ZN B8-1; ADD NOTE REGARDING D3552-101 AND D3552-103 COMPATIBILITY ZN A8-1	HS	09.04.02
C	ADD D3552-11 AND CONVERSIONS FOR INSPECTION; UPDATE P/N FOR D3552-7	LE	07.06.01
B	ADD D3552-7/-9; UPDATE DESC. D3552-1/-3/-5	LE	08.10.24
A	NEW ISSUE	LE	08.09.15
REV.	DESCRIPTION	BY	DATE
DESIGN	<i>AE</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	<i>AE</i>	DRAWING NO.	REV. K
CHECKED	<i>TM</i>	D3552	SHEET 1 OF 2
MFG. APPR.	<i>AE</i>	TITLE	SCALE
APPROVED	<i>TM</i>	DOOR PROP	NTS
DE APPR.	<i>TM</i>	DATE 12.07.16	

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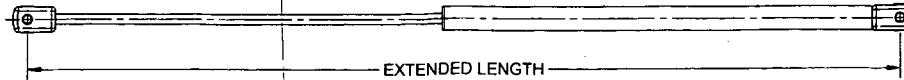
3

2

1

D

D



C

C

DART PART NUMBER	DESCRIPTION	STROKE (mm/in)	EXTENDED LENGTH (mm/in)	FORCE (N/lb)	END FITTING	MATERIAL	SUPPLIER	SUPPLIER PART NUMBER OR MODEL NUMBER
D3552-1	DOOR PROP	220/8.66	530/20.6	70/15.7	10mm SS BALL SOCKET	CARBON STEEL	LS TECHNOLOGIES	C8-220-530-070N
D3552-3	DOOR PROP	200/7.87	490/19.3	200/45.0	10mm SS BALL SOCKET	CARBON STEEL	LS TECHNOLOGIES	C8-200-490-200N
D3552-5	DOOR PROP	175/6.89	430/16.9	150/33.7	10mm SS BALL SOCKET	CARBON STEEL	LS TECHNOLOGIES	C8-175-430-150N
D3552-7	DOOR PROP	220/8.66	530/20.9	70/15.7	10mm NYLON BALL SOCKET	CARBON STEEL	LS TECHNOLOGIES	B8-220-530-070N
D3552-9	DOOR PROP	200/7.87	490/19.3	200/45.0	10mm NYLON BALL SOCKET	CARBON STEEL	LS TECHNOLOGIES	B8-200-490-200N
D3552-11	DOOR PROP	240/9.45	575/22.6	150/33.7	10mm NYLON BALL SOCKET	CARBON STEEL	LS TECHNOLOGIES	B8-240-575-150N
D3552-13	DOOR PROP	220/8.66	530/20.9	140/31.5	10mm NYLON BALL SOCKET	CARBON STEEL	LS TECHNOLOGIES	B8-220-530-140N
D3552-15	DOOR PROP W/EXTRA DAMPING	154/6.06	387/15.2	300/67.4	10mm NYLON BALL SOCKET	CARBON STEEL	LS TECHNOLOGIES	B8-154-387-300NX
D3552-17	DOOR PROP W/EXTRA DAMPING	154/6.06	387/15.2	156/35.1	10mm NYLON BALL SOCKET	CARBON STEEL	LS TECHNOLOGIES	B8-154-387-156NX
D3552-19	DOOR PROP W/EXTRA DAMPING	154/6.06	387/15.2	60/13.5	10mm NYLON BALL SOCKET	CARBON STEEL	LS TECHNOLOGIES	B8-154-387-060NX
D3552-21	DOOR PROP	167/6.57	410/16.1	70/15.7	10mm NYLON BALL SOCKET	CARBON STEEL	LS TECHNOLOGIES	B8-167-410-070N
D3552-23	DOOR PROP	190/7.48	475/18.7	70/15.7	10mm NYLON BALL SOCKET	CARBON STEEL	LS TECHNOLOGIES	B8-190-475-070N
D3552-25	DOOR PROP W/EXTRA DAMPING	148/5.83	475/18.7	300/67.4	10mm NYLON BALL SOCKET	CARBON STEEL	LS TECHNOLOGIES	B8-148-475-300NX
D3552-27	DOOR PROP W/EXTRA DAMPING	148/5.83	475/18.7	156/35.1	10mm NYLON BALL SOCKET	CARBON STEEL	LS TECHNOLOGIES	B8-148-475-156NX
2	D3552-101	CLIP	N/A	N/A	N/A	CARBON STEEL	LS TECHNOLOGIES	C9
3	D3552-103	BALL SOCKET END	N/A	N/A	N/A	NYLON	LS TECHNOLOGIES	B10

D3552-X DOOR PROP

RELEASED
2012-07-24
JWD

DESIGN	<i>SE</i>	DART AEROSPACE LTD	
DRAWN	<i>SE</i>	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>SE</i>	REV. K	
MFG. APPR.	<i>SE</i>	DRAWING NO.	
APPROVED	<i>SE</i>	D3552	SHEET 2 OF 2
DE APPR.	<i>SE</i>	TITLE	SCALE
		DOOR PROP	NTS
DATE	12.07.16	COPYRIGHT © 2006 BY DART AEROSPACE LTD THIS DOCUMENT IS PROPRIETARY AND RESTRICTED IN USE. IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

NOTES:

- 1) IDENTIFICATION: IDENTIFY PER QSI 044 6.2
- 2) D3552-101 CLIP IS ONLY COMPATIBLE WITH D3552-1/-3/-5 DOOR PROPS
- 3) D3552-103 BALL SOCKET END IS ONLY COMPATIBLE WITH D3552-7/-9/-11/-13/-15/-17/-19/-21/-23/-25/-27 DOOR PROPS

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5

4

3

2

1



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PO REPRINT

Purchase Order ID PO23681

Purchase Order Date 4/7/2014

PO Print Date 4/7/2014

Page Number 1 of 1

Order From :
LS TECHNOLOGIES INC.
314 JESSOP AVE
SASKATOON, SK S7N 1Y6
CA

VC-LST0001

Ship To :
DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

*FAXED
4/7/2014*

Contact Name	Buyer	Brigitte Golden
Vendor Phone	Customer POID	
	Customer Tax #	10127-2607
Ship To Contact	Terms	Net 30
Ship To Phone	Currency	CAD
Ship Via	FOB	FCA - (Free Carrier)
Ship Acct		

Line Nbr	Reference Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req. Qty/ Unit of Measure	PO Unit Price	Extended Price
	Line Comments						
	Delivery Comments						
71401-45			4/14/2014		1.00	\$0.00	\$0.00
				No			
	Procurement Quality Clauses		4/14/2014				
	A004 faa-pma/tso						
	A005 right of entry						
	A016 personnel qualification						
	A025 certification of conformance						
	A040 notification of quality escape						
	A043 retention of quality documents						
						Line Total:	\$0.00
B8-220-530-070N	CARBON STEEL GAS SPRING		4/14/2014		6.00	\$36.85	\$221.10
				Yes	Each		
			4/14/2014				
						Line Total:	\$221.10
						PO Total:	\$221.10

Note: Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Change Nbr: 1 Change Date: 4/7/2014



LS Technologies Inc
314 Jessop Ave
Saskatoon, SK, S7N 1Y6
Ph: (306) 683-5000 Fax: (306) 683-6403

Certificate of Compliance

April 9, 2014

This is to certify that the parts listed below meets specifications as required by your order.

6 Units: D3552-7 B115663 Gas Spring (B8-220-530-070N)

Country of Manufacture: Canada
Date of Manufacture : April 2014
This product is ROHS compliant.

Purchase Order # 23681

Invoice # 11030

L S Technologies Inc Canada



Nolan Fehr
Manager